



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,584	03/23/2004	Laurence N. Bascom	HT3985USNA	2245
23906	7590	07/31/2006		
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805				
			EXAMINER RUDDOCK, ULA CORINNA	
			ART UNIT 1771	PAPER NUMBER
DATE MAILED: 07/31/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/806,584	<b>Applicant(s)</b> BASCOM ET AL.	
	<b>Examiner</b> Ula C. Ruddock	<b>Art Unit</b> 1771	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/22/06 &amp; 5/19/06</u>   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 19, 2006, has been entered.
2. The Examiner has carefully considered Applicant's amendment and accompanying remarks. The previous prior art rejections have been withdrawn. However, after an updated search, additional prior art has been found which renders the invention as currently claimed unpatentable for reasons herein below.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Response to Amendment***

4. The declaration under 37 CFR 1.132 filed May 19, 2006, is sufficient to overcome the rejection of claims 1-12 based upon Erb, Jr. et al. (US 2002/0182967) and Corner (US 2003/0232560).

### ***Double Patenting***

5. Claims 1-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10996897.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims are obvious variants over one another.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant argues that **10/996897 requires ridges and grooves. It is the Examiner's position that this modification is an obvious variant over the claims of the present invention. Rejection is maintained.**

6. Claims 1-12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 11/023153. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims are obvious variants over one another.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

**Applicant argues that 11/023153 requires a liquid impermeable polymeric layer. It is the Examiner's position that this additional layer is an obvious variant over the claims of the present invention. Rejection is maintained.**

#### **Claim Rejections - 35 USC § 103**

7. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hainsworth et al. (US 6,955,193) in view of Erb, Jr. et al. 9US 2002/0182967) and Matsuda et al. (US 5,316,834) and Assink et al. (US 2004/0028958).

Hainsworth et al. disclose a fire resistant textile material. The material comprises a woven faced fabric comprising m-aramid fibers and a woven back fabric of low thermal shrinkage p-aramid fibers (abstract). The low shrinkage fibers are preferably disposed behind the face fabric (col 3, ln 10-11). The low thermal shrinkage fibers form an interwoven backing fabric on the back of the face fabric (col 3, ln 18-20). It should be noted that the Examiner is equating Hainsworth's low thermal shrinkage p-aramid fibers to Applicant's heat-resistant organic fibers and Hainsworth's woven faced fabric to the open mesh scrim of the present invention. The thickness of the fabric is increased from 0.7 mm before exposure to 4.3 mm after exposure, i.e. fabric increases its thickness between 2 and 10 times (col 6, ln 17-20 and claim 18). Hainsworth et al. disclose the claimed invention but fail to disclose that the woven fabric is specifically a scrim, that the p-aramid fibers are crimped, and that the p-aramid fibers are held in a compressed state by a thermoplastic binder.

Erb Jr. et al. disclose a fire blocking material comprising nonwoven fabric including para-aramid fibers (abstract) and a polyester woven scrim [0017]. The nonwoven fabric layer is generally supported by at least one scrim [0027]. In some embodiments, the fabric may incorporate multiple layers of scrim material and multiple nonwoven fabric layers [0027].

Matsuda et al. (US 5,316,834) disclose a flame-resistant, fiber-reinforced thermoplastic sheet (col 4, ln 43-46). A preferred organic heat-resistant fiber is para-aramid fiber (col 5, ln 39-41). The heat-resistant fiber is crimped to a web from to impart the fiber structure material with a high fiber-entangling strength (col 5, ln 64-67).

Assink et al. (US 2004/0028958) disclose a fire-resistant batt and panel that comprises fiber and binder material (abstract). The fiber component can include aramid fibers [0020]. The binder component acts as an adhesive and binder to bond the fibers into a relatively rigid configuration [0022]. A preferred binder can be polyester in a fibrous form or a particle (i.e. powder) form [0022].

It would have been obvious to have made the woven fabric of Hainsworth be the scrim of Erb, Jr. et al., motivated by the desire to create a fire resistant fabric that has strength yet is lightweight. It also would have been obvious to have used Matsuda's crimping process on the p-aramid fibers of Hainsworth et al., Jr. et al. and Assink et al., motivated by the desire to create a fabric that is lightweight and has excellent mechanical properties. Finally, it would have been obvious to have used Assink's polyester fiber binder or polyester powder binder on the fabric of Hainsworth et al. and Matsuda et al., motivated by the desire to create a fabric having greater strength and load-bearing properties.

### ***Response to Arguments***

8. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.


### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ula C. Ruddock whose telephone number is 571-272-1481. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

UCR 

  
**Ula C. Ruddock**  
Primary Examiner  
Tech Center 1700